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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:
Thomas T. Yamashita

Serial No. 09/695,531

Filed: October 23, 2000

For: *Microbial Blend Compositions And
Methods For Their Use*

Art Unit: 3643

Examiner: Gellner, Jeffrey L.

Atty. Ref. YAMA008

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GROUP 3600

DECLARATION UNDER 37 C.F.R. 1.132

The Commissioner for Patents
Washington D.C. 20231

Dear Sir,

I, Thomas Yamashita, am the sole inventor of the subject matter claimed in the patent application identified above. Enclosed is a copy of my C.V. which demonstrates that I am qualified to speak on the level of one of skill in the art.

I hereby declare as follows:

1. I have read the Office Action dated January 31, 2002 for the above references application, as well as the references cited therein to support the rejections made by the Examiner.
2. International publication number W0 97/31879 discloses a composition that includes microorganisms. It is well known in the art that certain microorganisms named in W0 97/31879 do not possess one or more of the properties claimed in the above-referenced application.
 - a) W0 97/31879 teaches the use of yeast species such as *Saccharomyces cerevisiae*. It is well known in the art that yeast species do not tolerate high temperatures.
 - b) W0 97/31879 teaches the use of *E. herbicola*. It is well known in the art that certain strains of *E. herbicola* initiate ice-crystal formation in plants, thereby raising the normal freezing point thereof and thus are known to be a factor in causing freeze damage to plants. Furthermore, it is well known the art that

many species of the genus *Erwinia* are pathogenic to plants and are not tolerant of high temperatures.

See for example:

- (1) Lindow, S.E., Amy, D.C., Barchet, W.R. and Upper, C.D. 1976. *Erwinia herbicola* isolates active in ice nucleation incite frost damage to corn (*Zea mays* L.) Proceedings of the American Phytopathological Society 3:224.
- (2) Lindow, S.E., Amy, D.C. and Upper, C.D. 1978. *Erwinia herbicola*: A bacterial ice nucleus active in increasing frost injury to corn. Phytopathology 68:523-527.
- (3) Wingard, S.A. 1924. Bacterial soft-rot of tomato. Phytopathology 14:451.
- (4) Ceponis, M.J., Kaufman, J. and Butterfield, J.E. 1970. Relative importance of gray mold and bacterial soft rot of western lettuce on the New York Market. Plant Disease Reporter 54:263.
- (5) Brock, T.D. 1979. Biology of Microorganisms. 3rd Edition. Prentice-Hall, Inc. Englewood Cliffs, N.J. p.675.

- c) W0 97/31879 teaches the use of *Pseudomonas*. It is well known in the art that certain species of *Pseudomonas* initiate ice-crystal formation in plants, thereby raising the normal freezing point thereof and thus are known to be a factor in causing freeze damage to plants. Furthermore, it is well known in the art that many species of *Pseudomonas* are pathogenic to certain plants, are pathogenic to humans and are not tolerant of high temperatures.

See for example:

- (1) Lindow, S.E., Amy, D.C. and Upper, C.D. 1975. Increased frost sensitivity of maize in the presence of *Pseudomonas syringae*. Proceedings of the American Phytopathological Society 2:57.
- (2) Lindow, S.E., Amy, D.C. and Upper, C.D. 1977. Distribution of epiphytic ice nucleation-active strains of *Pseudomonas syringae*. Proceedings of the American Phytopathological Society 4:107.
- (3) Buddenhagen, I.W. and Kelman, A. 1964. Biological and physiological aspects of bacterial wilt caused by *Pseudomonas solanacearum*. Annual Review of Phytopathology 2:203.
- (4) Scarlett, C.M. 1978. Tomato pith necrosis caused by *Pseudomonas corrugata* n.sp. Annals of Applied Biology 88:105.
- (5) Lindemann, J., Amy, D.C. and Upper, C.D. 1984. Epiphytic populations of *Pseudomonas syringae* pv. *syringae* on snap bean and nonhost plants and the incidence of bacterial brown spot disease in relation to cropping patterns. Phytopathology 74:1329.
- (6) Cameron, H.R. 1962. Disease of deciduous fruit trees incited by *Pseudomonas syringae* van Hall. Oregon Agricultural Experiment Station Technical Bulletin 66.
- (7) Brock, T.D. 1979. Biology of Microorganisms. 3rd Edition. Prentice-Hall, Englewood Cliffs, N.J. ("The Genus *Pseudomonas*") pp. 658-661.

- d) W0 97/31879 teaches the use of *Serratia*. It is well known in the art that certain species of *Serratia* are pathogenic to humans and are not tolerant of high temperatures.
See for example:
San Francisco Chronicle (~1978). Pneumonia-like symptoms caused by *Serratia marcescens* accidentally released from a military plane flying over San Francisco.
- e) W0 97/31879 teaches the use of *Agrobacterium*. It is well known in the art that certain species of *Agrobacterium* are pathogenic to certain plants and are not tolerant of high temperatures.
See for example:
- (1) Smith, E.F. 1907. A plant tumor of bacterial origin. *Science* 25:671.
 - (2) Kerr, A. 1969. Crown gall on stone fruit. I. Isolation of *Agrobacterium tumefaciens* and related species. *Australian Journal of Biological Science* 22:111.
 - (3) Sule, S. and Kato, C.I. 1980. Agrocin resistance in virulent derivatives of *Agrobacterium tumefaciens* harboring the pTi plasmid. *Physiological Plant Pathology* 17:347.
 - (4) Brock, T.D. 1979. *Biology of Microorganisms*. 3rd Edition. Prentice-Hall, Inc., Englewood Cliffs, N.J. pp. 662-663.
- f) W0 97/31879 teaches the use of *Actinomyces*. It is well known in the art that certain species of the group Actinomycetes are pathogenic to certain plants and are pathogenic to humans.
See for example:
- (1) Brock, T.D. 1979, *Biology of Microorganisms*. 3rd Edition. Prentice-Hall, Inc., Englewood Cliffs, N.J. p.708.
 - (2) Hooker, W.J. and Page, O.T. 1960. Relation of potato tuber growth and skin maturity to infection by common scab, *Streptomyces scabies*. *American Potato Journal* 37:414.
- g) W0 97/31879 teaches the use of *Azotobacter*. It is well known in the art that *Azotobacter* does not tolerate high temperatures.
See for example:
- (1) Brock, T.D. 1979, *Biology of Microorganisms*. 3rd Edition. Prentice-Hall, Inc., Englewood Cliffs, N.J. p.708.
- h) W0 97/31879 teaches the use of *Rhizobium*. It is well known in the art that *Rhizobium* does not tolerate high temperatures.
- i) W0 97/31879 teaches the use of *Klebsiella*. It is well known in the art that *Klebsiella* does not tolerate high temperatures and certain species of *Klebsiella* are pathogenic to humans.
See for example:
- (1) Brock, T.D. 1979, *Biology of Microorganisms*. 3rd Edition. Prentice-Hall, Inc., Englewood Cliffs, N.J. p.708.

- j) W0 97/31879 teaches the use of *Azospirillum*. It is well known in the art that *Azospirillum* does not tolerate high temperatures.
- k) W0 97/31879 teaches the use of *Enterobacter*. It is well known in the art that *Enterobacter* does not tolerate high temperatures.
- l) W0 97/31879 teaches the use of *Arthrobacter*. It is well known in the art that *Arthrobacter* does not tolerate high temperatures.
- m) W0 97/31879 teaches the use of *Aerobacter*. It is well known in the art that *Aerobacter* does not tolerate high temperatures.

I hereby declare that all statements made herein of my own knowledge and are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued therefrom.

Respectfully submitted,

Date: 3-27-02

Thomas Yamashita
Thomas Yamashita